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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/930,612

08/15/2001

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008A.0001.U1(US)

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06/23/2006

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EXAMINER

POPHAM, JEFFREY D

ART UNIT

PAPER NUMBER

2137

DATE MAILED: 06/23/2006

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/930,612  
Filing Date: August 15, 2001  
Appellant(s): WILLIAMS, IAN C.

**MAILED**

**JUN 23 2006**

**Technology Center 2100**

Robert Mauri  
Attorney  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/10/2006 appealing from the Office action mailed 1/31/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 102-105, 108, 109, 111, 125, 127, 132-135, 137-144, 148, 149, 151, 158, 175-177, 180, 181, 183, and 186 are rejected under 35 U.S.C. 102(e) as being anticipated by Raanan (U.S. Patent 6,311,278).

Regarding Claim 1,

Raanan discloses a data processing system, comprising:

A first processing resource (gateway/filter) in the form of a web server coupleable to an open communications network (Column 5, lines 10-29); and

A second processing resource (server) in the form of a back end server coupleable to the first processing resource (Column 5, lines 10-29);

The first processing resource and the second processing resource being configured to establish a communications relationship between them through a non-network connected communications channel, whereby the second processing resource is restricted to implementing an instruction communicated from the first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of the second processing resource (Column 5, lines 10-29).

Regarding Claim 125,

Claim 125 is an apparatus claim that corresponds to system claim 1 and is rejected for the same reasons.

Regarding Claim 135,

Claim 135 is an apparatus claim that is broader than system claim 1 and is rejection for the same reasons.

Regarding Claim 140,

Claim 140 is a method claim that corresponds to system claim 1 and is rejected for the same reasons.

Regarding Claim 175,

Claim 175 is a carrier medium claim that corresponds to system claim 1 and is rejected for the same reasons.

Regarding Claim 180,

Claim 180 is a carrier medium claim that corresponds to system claim 1 and is rejected for the same reasons.

Regarding Claim 102,

Raanan discloses that the first processing resource is configured to transmit the instruction to the second processing resource for the instruction satisfying a predetermined criterion (Column 5, lines 10-29).

Regarding Claim 141,

Claim 141 is a method claim that corresponds to system claim 102 and is rejected for the same reasons.

Regarding Claim 176,

Claim 176 is a carrier medium claim that corresponds to system claim 102 and is rejected for the same reasons.

Regarding Claim 181,

Claim 181 is a carrier medium claim that corresponds to system claim 102 and is rejected for the same reasons.

Regarding Claim 103,

Raanan discloses that the first processing resource is configured to transmit the instruction to the second processing resource and where the

second processing resource is configured to execute the instruction for the instruction satisfying a predetermined criterion (Column 5, lines 10-29).

Regarding Claim 142,

Claim 142 is a method claim that corresponds to system claim 103 and is rejected for the same reasons.

Regarding Claim 177,

Claim 177 is a carrier medium claim that corresponds to system claim 103 and is rejected for the same reasons.

Regarding Claim 104,

Raanan discloses the predetermined criterion comprising the instruction being included in a predefined set of allowable instructions for the second processing resource (Column 5, lines 10-29).

Regarding Claim 143,

Claim 143 is a method claim that corresponds to system claim 104 and is rejected for the same reasons.

Regarding Claim 105,

Raanan discloses the predetermined criterion comprising the instruction being identified as an allowable instruction for the second processing resource (Column 5, lines 10-29).

Regarding Claim 144,

Claim 144 is a method claim that corresponds to system claim 105 and is rejected for the same reasons.

Regarding Claim 108,

Raanan discloses the instruction comprising a computer program procedure name (Column 5, lines 10-29; and Column 6, lines 1-6).

Regarding Claim 132,

Claim 132 is an apparatus claim that corresponds to system claim 108 and is rejected for the same reasons.

Regarding Claim 137,

Claim 137 is an apparatus claim that is broader than system claim 108 and is rejected for the same reasons.

Regarding Claim 148,

Claim 148 is a method claim that corresponds to system claim 108 and is rejected for the same reasons.

Regarding Claim 109,

Raanan discloses the second processing resource configured to provide a reply message to the first processing resource responsive to an instruction satisfying the predetermined criterion (Column 4, lines 46-64).

Regarding Claim 149,

Claim 149 is a method claim that corresponds to system claim 109 and is rejected for the same reasons.

Regarding Claim 111,

Raanan discloses the instruction being comprised in a message for transmission to the second processing resource (Column 5, lines 10-29).



Regarding Claim 127,

Claim 127 is an apparatus claim that corresponds to system claim 111 and is rejected for the same reasons.

Regarding Claim 151,

Claim 151 is a method claim that corresponds to system claim 111 and is rejected for the same reasons.

Regarding Claim 133,

Raanan discloses the predetermined criterion comprising the instruction or the computer program procedure being included in a predefined set of allowable instructions or computer program procedures for the second processing resource (Column 5, lines 10-29).

Regarding Claim 138,

Claim 138 is an apparatus claim that is broader than apparatus claim 133 and is rejected for the same reasons.

Regarding Claim 134,

Raanan discloses the predetermined criterion comprising the instruction or the computer program procedure being identified as an allowable instruction or computer program procedure for the second processing resource (Column 5, lines 10-29).

Regarding Claim 139,

Claim 139 is an apparatus claim that is broader than apparatus claim 134 and is rejected for the same reasons.

Regarding Claim 158,

Raanan discloses the first processing resource deriving sensitive information from a communication, and including the sensitive information in the message (Column 1, lines 54-64; and Column 2, lines 40-42).

Regarding Claim 183,

Raanan discloses that the system is configured to operate in a command mode for transmitting commands from the second processing resource to the first processing resource (Column 4, line 65 to Column 5, line 10). This is the case where the protocol database in the first processing resource is not static through sessions, and is modified dynamically by the second processing resource.

Regarding Claim 186,

Claim 186 is a method claim that corresponds to system claim 183 and is rejected for the same reasons.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 106, 136, and 145 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raanan in view of Piccioni (U.S. Patent 6,842,774).

Regarding Claim 106,

Raanan discloses that all messages from the second processing resource will pass through the first processing resource (Column 4, lines 46-64), but does not disclose the second processing resource being configured to transmit an instruction fail message responsive to the second processing resource determining the instruction failing to satisfy the predetermined criterion.

Piccioni, however, discloses the second processing resource being configured to transmit an instruction fail message responsive to the second processing resource determining the instruction failing to satisfy the predetermined criterion (Column 6, lines 8-30). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the notification system of Piccioni into the protocol filtering system of Raanan in order to allow the second processing resource to return generalized information to parties that are not allowed full access to the information, thus protecting the secure information from parties which do not have the correct access permissions.

Regarding Claim 136,

Claim 136 is an apparatus claim that is broader than system claim 106 and is rejected for the same reasons.

Regarding Claim 145,

Claim 145 is a method claim that corresponds to system claim 106 and is rejected for the same reasons.

3. Claims 107, 146, and 147 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raanan in view of Tanaka (U.S. Patent 5,539,909).

Regarding Claim 107,

Raanan discloses that the second processing resource determines which instructions are to be included in the database of allowable functionality (Column 4, lines 46-64), but does not disclose that the second processing resource determines this by using a database located at the second processing resource.

Tanaka, however, discloses that the second processing resource comprises a database of executable instructions defining predetermined allowable functionality of the second processing resource (Column 5, lines 3-18). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the RPC system of Tanaka into the protocol filtering system of Raanan in order to allow the server to change pointers, parameters, etc. in the exact calling procedure, while allowing the client to use a persistent message to call that same procedure, without needing to know the specifics of how the procedure will be formatted at the second processing resource.

Regarding Claim 146,

Claim 146 is a method claim that corresponds to system claim 107 and is rejected for the same reasons.

Regarding Claim 147,

Raanan as modified by Tanaka disclose the method of claim 146, in addition, Tanaka discloses the second processing resource comparing the instruction with the database of executable instructions for determining whether the instruction is an allowable instruction (Column 7, lines 14-32).

4. Claims 110, 112-119, 126, 128-131, 150, 152-157, and 159 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raanan in view of Willmann (U.S. Patent 5,521,923).

Regarding Claim 110,

Raanan does not disclose the first processing resource comprising a storage medium configured to store the instruction in a queue prior to transmission to the second processing resource.

Willmann, however, discloses the first processing resource comprising a storage medium configured to store the instruction in a queue prior to transmission to the second processing resource (Column 4, lines 26-36). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be services in a FIFO manner

first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 126,

Claim 126 is an apparatus claim that corresponds to system claim 110 and is rejected for the same reasons.

Regarding Claim 150,

Claim 150 is a method claim that corresponds to system claim 110 and is rejected for the same reasons.

Regarding Claim 112,

Raanan does not disclose the first processing resource comprising a storage medium configured to store the message in a queue prior to transmission to the second processing resource.

Willmann, however discloses the first processing resource comprising a storage medium configured to store the message in a queue prior to transmission to the second processing resource (Column 4, lines 26-36). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 152,

Claim 152 is a method claim that corresponds to system claim 112 and is rejected for the same reasons.

Regarding Claim 113,

Raanan discloses that the message includes an instruction type (Column 5, lines 10-29; and Column 6, lines 1-6), but does not disclose that the first processing resource is configured to include in the message an action code indicative of the instruction type.

Willmann, however, discloses that the message includes an instruction type and the first processing resource is configured to include in the message an action code indicative of the instruction type (Column 3, line 65 to Column 4, line 4). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 128,

Claim 128 is an apparatus claim that corresponds to system claim 113 and is rejected for the same reasons.

Regarding Claim 153,

Claim 153 is a method claim that corresponds to system claim 113 and is rejected for the same reasons.

Regarding Claim 114,

Raanan discloses that the message includes an instruction type (Column 5, lines 10-29; and Column 6, lines 1-6), but does not disclose the first processing resource comprising a storage medium configured to store the message prior to transmission to the second processing resource, the first processing resource being further configured to include in the message an action code indicative of the instruction type, and the first processing resource configured to store the message in accordance with a priority assigned to the action code.

Willmann, however, discloses the first processing resource comprising a storage medium configured to store the message prior to transmission to the second processing resource (Column 4, lines 26-36), the first processing resource being further configured to include in the message an action code indicative of the instruction type, and the first processing resource configured to store the message in accordance with a priority assigned to the action code (Column 3, line 65 to Column 4, line 4; and Column 4, line 48 to Column 5, line 9). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high



priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 129,

Claim 129 is an apparatus claim that corresponds to system claim 114 and is rejected for the same reasons.

Regarding Claim 154,

Claim 154 is a method claim that corresponds to system claim 114 and is rejected for the same reasons.

Regarding Claim 115,

Raanan does not disclose the first processing resource comprising a storage medium configured to store the message prior to transmission to the second processing resource, the first processing resource configured to store messages in accordance with their chronological order

Willmann, however, discloses the first processing resource comprising a storage medium configured to store the message prior to transmission to the second processing resource, the first processing resource configured to store messages in accordance with their chronological order (Column 4, lines 9-19). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high

priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 130,

Claim 130 is an apparatus claim that corresponds to system claim 115 and is rejected for the same reasons.

Regarding Claim 155,

Claim 155 is a method claim that corresponds to system claim 115 and is rejected for the same reasons.

Regarding Claim 116,

Raanan as modified by Willmann disclose the system of Claim 114, in addition, Willmann discloses the first processing resource being configured to select a stored message for transmission to the second processing resource in accordance with a priority determined by the action code of the message (Column 6, line 66 to Column 7, line 6).

Regarding Claim 156,

Claim 156 is a method claim that corresponds to system claim 116 and is rejected for the same reasons.

Regarding Claim 117,

Raanan discloses the first processing resource configured to transmit the instruction or a message including the instruction responsive to receiving a communication comprising sensitive information (Column 1,

lines 54-64; and Column 2, lines 40-42), but does not disclose discarding the sensitive information from the first processing resource.

Willmann, however, discloses discarding the sensitive information from the first processing resource (Column 4, lines 37-44). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 118,

Raanan as modified by Willmann discloses the system of claim 117, in addition, Raanan discloses the message representing sensitive information derived from the communication (Column 1, lines 54-64; and Column 2, lines 40-42).

Regarding Claim 119,

Raanan as modified by Willmann discloses the system of claim 117, in addition, Willmann discloses that the sensitive information is discarded in response to transmission of the message comprising sensitive information to the second processing resource (Column 4, lines 37-44).

Regarding Claim 131,

Raanan discloses the first processing resource being configured to transmit the instruction or message responsive to receiving the communication comprising sensitive information (Column 1, lines 54-64; and Column 2, lines 40-42), but does not disclose removing at least that part of the communication comprising sensitive information from the first processing resource.

Willmann, however, discloses removing at least that part of the communication comprising sensitive information from the first processing resource (Column 4, lines 37-44). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 157,

Raanan discloses the first processing resource transmitting the instruction or message in response to receiving a communication comprising sensitive information (Column 1, lines 54-64; and Column 2, lines 40-42), but does not disclose discarding the sensitive information from the first processing resource.

Willmann, however, discloses discarding the sensitive information from the first processing resource (Column 4, lines 37-44). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

Regarding Claim 159,

Raanan does not disclose the first processing resource discarding the sensitive information in response to a transmission of the message comprising the sensitive information to the second processing resource.

Willmann, however, discloses the first processing resource discarding the sensitive information in response to a transmission of the message comprising the sensitive information to the second processing resource (Column 4, lines 37-44). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

5. Claims 160, 161, 184, and 185 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raanan in view of Willmann, further in view of RFC791 ("Internet Protocol, DARPA Internet Program Protocol Specification", 9/1981, obtained from <http://rfc.net/rfc791.html>).

Regarding Claim 160,

Raanan does not disclose the first processing resource discarding the sensitive information within a predetermined time period.

Willmann, however, discloses the first processing resource discarding the sensitive information (Column 4, lines 37-44). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the memory storage system of Willmann into the protocol filtering system of Raanan in order to allow those messages of high priority to be serviced in a FIFO manner first, while the messages of lower priority will be serviced, just less often, since they aren't of as great importance as the higher priority messages.

RFC791, however, discloses the first processing resource discarding the sensitive information within a predetermined time period (Page 30, Time to Live section, Paragraph 1). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the timer system of RFC791 into the protocol filtering system of Raanan as modified by Willmann in order to allow undeliverable

packets to be discarded after a preset time limit, thus clearing the queue for deliverable packets.

Regarding Claim 161,

Raanan as modified by Willmann and RFC791 disclose the method of claim 160, in addition, RFC791 discloses that the time period is one of the following: 91) less than 2 minutes from receipt of the communication, (2) less than 1 minute from receipt of the communication, or (3) the shortest time possible from receipt of the communication (Pages 27-28, An Example Reassembly Procedure section, Paragraph 4).

Regarding Claim 184,

Raanan as modified by Willmann does not disclose the first processing resource being configured to discard the sensitive information within a predetermined time period.

RFC791, however, discloses the first processing resource being configured to discard the sensitive information within a predetermined time period (Page 30, Time to Live section, Paragraph 1). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the timer system of RFC791 into the protocol filtering system of Raanan as modified by Willmann in order to allow undeliverable packets to be discarded after a preset time limit, thus clearing the queue for deliverable packets.

Regarding Claim 185,

Raanan as modified by Willmann and RFC791 disclose the system of claim 184, in addition, RFC791 discloses that the time period is one of the following: (1) less than two minutes from receipt of the communication or (2) the shortest possible time from receipt of the communication (Pages 27-28, An Example Reassembly Procedure section, Paragraph 4).

6. Claims 178 and 182 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raanan in view of OSTA (OSTA, "The Benefits of Writable Optical Storage", 2/25/1999, pp. 1-4, obtained from <http://web.archive.org/web/20000510215932/www.osta.org/html/benefits.html>).

Regarding Claim 178,

Raanan does not disclose that the carrier medium comprises at least one of the following: a solid-state memory; a magnetic tape memory medium; a magnetic disc; and an optical storage medium.

OSTA, however, discloses that the carrier medium comprises at least one of the following: a solid-state memory; a magnetic tape memory medium; a magnetic disc; and an optical storage medium (Pages 1-4). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the optical storage of OSTA into the protocol filtering system of Raanan in order to store the machine readable instructions on a medium that is very durable, has a long lifetime, and can store a lot of data.



Regarding Claim 182,

Raanan does not disclose that the carrier medium comprises at least one of the following: a solid-state memory; a magnetic tape memory medium; a magnetic disc; and an optical storage medium.

OSTA, however, discloses that the carrier medium comprises at least one of the following: a solid-state memory; a magnetic tape memory medium; a magnetic disc; and an optical storage medium (Pages 1-4). It would have been obvious to one of ordinary skill in the art at the time of appellant's invention to incorporate the optical storage of OSTA into the protocol filtering system of Raanan in order to store the machine readable instructions on a medium that is very durable, has a long lifetime, and can store a lot of data.

#### **(10) Response to Argument**

##### **Issue A**

Appellant argues that Raanan does not disclose a non-network connected communications channel. The very basis of this argument is flawed in that "non-network connected communications channel", taken at its literal meaning, is an oxymoron. Appellant refers to Page 16, lines 2-9 of the specification in order to provide a definition for non-network connected communications channel. "Preferably, communications channel 50 is a non-network connected communications channel. In

the present example, the dedicated communications channel 50 is a serial line, but may be a parallel connection. The communications channel 50 may comprise a twisted pair, optical fibre, or wireless link, for example, and other suitable communications channels may be provided.” From this example, it is clear that the non-network connected communications channel is any suitable form of communications channel. Stating that it is non-network connected refers only to the fact that it is not directly connected to and accessible by the open communications network (the only claimed network).

Raanan discloses a non-network connected communications channel as claimed. This is seen in the cited portion (Column 5, lines 10-29) in that every communication to and from the server and the open communication network must first pass through the filter/gateway/extractor component (hereafter referred to as gateway). As further proof that this is a non-network connected communications channel, Raanan teaches (Column 4, lines 5-45) that the gateway can be split into two distinct robots. One robot is the external robot, which communicates with the open communications network, and the other is the internal robot communicates with the server. These robots are two separate and independent logical processes, and may be installed either on separate devices or on the same device; the robots operating in protected mode. Each robot translates messages to/from CIP (clear inter-protocol) in order to communicate with each other. The robots also translate the CIP messages into the protocol for the respective native environments (open communications network and server for external and internal robots, respectively), and are “connected via a dedicated, secure communication bus” as seen in Raanan, Column 4, lines 12-13.

Appellant also argues that, since Raanan can transfer TCP/IP and HTTP data to/from the server, Raanan discloses only a network connection based system. Appellant, however, discloses that the backend server can receive, transmit, and store pages and documents in HTTP format. This is shown in the portion that was cited by appellant in that "an order page is stored on either database 46 or 52 and is sent to client computer system" (database 52 being part of the backend server), "the order page itself may be transmitted to the backend server", and "since the backend server 48 is not network coupled, sensitive data comprising the details are prevented from being accessed from the Internet". In addition, appellant describes, at page 15, lines 26-27, that the definition of web pages is "web pages (Hypertext Transfer Protocol HTTP formatted documents and files)". As can clearly be seen, appellant discloses a system that receives, transmits, and stores HTTP data at the backend server, meaning that this argument must be flawed.

Appellant also argues that Raanan states that the server is part of a computer network that also includes client. Raanan does teach that the server and client are connected, namely that the client communicates with the gateway via an open communications network, such as the Internet, and that the gateway connects this network (and thus the clients) to the server via the communication channel between the gateway and server. However, using the only claimed network, they are not on the same network.

Appellant also argues that, in Raanan, clients direct requests to the server, the server directs responses to the clients, and the gateway intercepts these messages.

While this may be true, it has no bearing on the claims, since none of the claims include any limitations regarding a client, or the like, communicating with any portion of the claimed system. The claims only require a first processing resource (gateway) communicating with a second processing resource (server). As appellant has noted, this occurs within Raanan.

Appellant also argues that Raanan does not teach that the instruction can comprise a computer program procedure name. Readily apparent from the cited portion of Raanan (Column 5, lines 10-29; and Column 6, lines 1-6), the gateway sends commands to the server that include, for example, "a 'submit' command on an HTML form, a 'search' command, or other application-level protocols". The command is the program procedure name, since a command is the name of the procedure performed by the program/application.

Appellant also argues that there is no reply message in Raanan provided from the server to the gateway, where the reply message is responsive to an instruction satisfying predetermined criterion. As indicated by appellant regarding this argument, "the protocol extraction module 18 intercepts server messages" and "the message may be a response to a request previously received from the client". The server receives a request from the gateway that was originated by a client and then responds to the request by sending a response through the gateway, where the gateway extracts information from the response. Since this claim is dependent upon claim 102, simply viewing the cited portion for the rejection of claim 102 (Column 5, lines 10-29) will show

that “if the request is allowable, the filter module 14 passes the request along to the server”, showing that the instruction satisfied the predetermined criterion.

Appellant also argues that the gateway of Raanan does not derive sensitive information from a communication and include the sensitive information in a message from the gateway to the server. As appellant has indicated regarding this argument, “sensitive information may comprise credit card details or personal details such as address of a customer, and may generally be understood to refer to any information which either a person submitting the information to the system or the operator of the system does not wish to be accessible or available to unauthorised persons”. It is clearly seen that any data sent from a client can be considered sensitive, including an element as simple as an IP address, which, if determined by a malicious entity, could be fraudulently used. The cited portions of Raanan (Column 1, lines 54-64; and Column 2, lines 40-42) go more in depth regarding sensitive information being information related to e-commerce, billing, banking, etc. Also, one of the foundations of Raanan is to provide a protected interface between the clients and the server so that unauthorized persons cannot access the server, as evidenced by the robots maintaining a protected mode and communicating only through a dedicated communication channel.

Appellant also argues that Raanan does not disclose a command mode that allows commands to be transmitted from the second processing resource (server) to the first processing resource (gateway). Claim 183 consists of the limitation “the system is configured to operate in a command mode for transmitting commands from the second processing resource to the first processing resource”. Claim 186 consists of a similar

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limitation. As can be seen in Raanan, Column 3, lines 1-3, "The program next parses the remaining message to identify commands, fields, or other user-selectable options contained in the message" in reference to the extraction of data from a message sent from the server to the gateway, unambiguously teaching that the gateway receives commands from the server, as required by the claims.

### **Issue B**

Appellant argues that there is no reason to send a failure message from the server to the gateway in Raanan. One of the main purposes of Raanan is to provide for the gateway to automatically adapt to changes in applications and allow for continuous modification of the protocol database. The server sends back responses/messages to the gateway (and ultimately to a client), said message having information regarding an instruction that is allowable on the server (for the particular client, session, statically for all clients, etc.). The gateway will then extract this information and update the protocol database regarding this allowable instruction. The combination of Raanan-Piccioni allows the server to send back messages that dynamically change the filter rules of the gateway to allow the server to give full, partial, or no access to specified data to the client. This response can be a failure response in that the server determines that the client should have no access or partial access to the data. When the gateway receives this message, it will extract the information and update the protocol database accordingly to include what is allowable and what is not allowable for that client. Being able to send a failure message allows the system to be more versatile so that the

gateway knows that this request is to be denied in the future (or partially denied as the case may be).

Appellant also argues that there is no communication from the server to the gateway. The cited portion of Raanan (Column 4, lines 46-64) teaches this communication explicitly, in that “the protocol extraction module 18 intercepts server messages”. The server responds to requests sent to it from the gateway and the gateway receives such responses.

### **Issue C**

Appellant argues “It appears that in the rejection of claim 107 the Examiner is equating the ‘second processing resource’ of the claims with the ‘protocol extraction module 18’ of Raanan, as the protocol extraction module 18 in Raanan is a device that ‘intercepts server messages and extracts application protocol data for addition to the protocol database 16’ (see cited text of Raanan)”. This was never stated or inferred by the examiner, and the examiner’s interpretation of Raanan has not been changed in regard to these claims. A portion of the cited passage (Column 4, lines 46-64) reads “The server 10 transmits a message directed to the client, step 30, the message containing information relating to the application residing and running on the server”. From this it can be seen that the server (second processing resource) determines that which is allowable and sends a response to the gateway (and ultimately client) regarding such, this allowable functionality being included in a database at the gateway (first processing resource).

Appellant also argues that there is no reason or motivation to include a database in the server. As discussed, the server has a means for determining what is allowable and what is not allowable. In Raanan, this determination is not based explicitly on a database of executable instructions, however. Thus, the combination provides for the server to determine whether a request is allowable by checking a database. A major point of Raanan is that the server can dynamically change its rules regarding what actions are allowable and tell the gateway such, so that the gateway can continuously update the filtering database to better serve the needs of the server. The addition of a database within the server, as in the combination, allows the server to easily retain state of connections, requests, applications, allowable instructions, etc. and to change many aspects about how data is accessed without requiring the client to be aware of this change.

#### **Issue D**

Regarding claim 110, appellant argues that there is no motivation for having a priority in sending messages from the gateway to the server. The ability to prioritize messages within the gateway is the motivation for the addition of a queue to Raanan's system as required by the claim. However, prioritization is a technique used throughout the art of computers, whether it is used to give better/higher paying customers of an e-commerce site faster service or to provide better access to a CEO than another employee. Providing for prioritization within a gateway system such as Raanan can help filter requests further such that users that always make allowable requests are



allowed access to a higher priority queue, while users that make disallowable requests more frequently are placed in a second queue so that the system will service them in a less efficient manner, thus providing improved access to those that make requests that are known to be allowable and do not waste the system's resources. Another way that prioritization can help the system of Raanan is to allow requests to applications that are of high security to be sent to the server quickly, so that such requests are handled in an efficient manner and thus less security vulnerabilities may be realized. Providing the multiple-queue of Willmann into the system of Raanan provides other advantages, such as to allow packets to enter a queue before being sent to the server, so that if the server is busy, the packets are not simply dropped, thus allowing the system to retain customers/clients. Another advantage would be that speed regarding the gateway can be increased since the gateway is free to process additional requests while those requests that are allowable and waiting for the server to become free are in a queue.

Appellant also argues that there is no action code within Willmann. This action code can be found in the FIFO queues. Taken in combination, the FIFO and the position within the FIFO where the data resides are the action code, since it describes the type of instruction (based on FIFO) and an action of the instruction regarding timing and position in the FIFO.

Appellant also argues that there is no sensitive information in Raanan as modified by Willmann. As appellant has indicated, "sensitive information may comprise credit card details or personal details such as address of a customer, and may generally be understood to refer to any information which either a person submitting the

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information to the system or the operator of the system does not wish to be accessible or available to unauthorised persons". It is clearly seen that any data sent from a client can be considered sensitive, including an element as simple as an IP address, which, if determined by a malicious entity, could be fraudulently used. The cited portions of Raanan (Column 1, lines 54-64; and Column 2, lines 40-42) go more in depth regarding sensitive information being information related to e-commerce, billing, banking, etc. Also, one of the foundations of Raanan is to provide a protected interface between the clients and the server so that unauthorized persons cannot access the server, as evidenced by the robots maintaining a protected mode and communicating only through a dedicated communication channel

Appellant also argues that Willmann does not disclose the first processing resource removing at least a sensitive part of a communication once the communication is sent to the second processing resource. The combination of Raanan-Willmann teaches the storing of sensitive data at the first processing resource, and, subsequent to transmitting the sensitive data from the first processing resource to the second processing resource, deleting (or removing) the sensitive data from the first processing resource, as evidenced by the cited sections (Raanan: Column 1, lines 54-64 and Column 2, lines 40-42; and Willmann: Column 4, lines 37-44).

### **Issue E**

Appellant argues that Willmann does not disclose the first processing resource removing at least a sensitive part of a communication once the communication is sent to

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the second processing resource. The combination of Raanan-Willmann teaches the storing of sensitive data at the first processing resource, and, subsequent to transmitting the sensitive data from the first processing resource to the second processing resource, deleting (or removing) the sensitive data from the first processing resource, as evidenced by the cited sections (Raanan: Column 1, lines 54-64 and Column 2, lines 40-42; and Willmann: Column 4, lines 37-44).

Appellant also argues that RFC791 is inapplicable to a processing resource that discards sensitive information. Appellant admits that Willmann teaches deleting packets from a queue after the packets have been read. As seen by this, the combination of Raanan-Willmann and Raanan-Willmann-RFC791 teach that the sensitive information is discarded within a predetermined time period, said predetermined time period being one of (1) less than 2 minutes from receipt of the communication, (2) less than 1 minute from receipt of the communication or (3) the shortest time possible from receipt of the communication.

#### **Issue F**

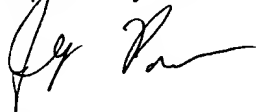
There are no additional arguments in this section.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



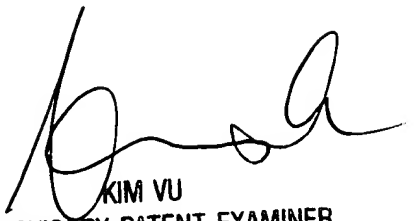
Jeff Popham

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